Report Date: 02 Feb 2013

Summary Report for Individual Task
441-066-1167
Operate the Defense Advanced Global Positioning System (GPS) Receiver (DAGR)
Status: Approved

Condition: Your supervisor directs you to operate the AN/PSN-13 Defense Advance Global Positioning System Receiver (DAGR). This task should not be trained in MOPP.

Standard: Operate the DAGR (GPS) per TM 11-5820-1172-13 and SOP, without causing injury to self or other personnel, with no damage to the equipment, and within the time prescribed by local command directives.

Special Condition: None

Special Standards: None

Special Equipment: None

MOPP: Never

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

Notes: Universal Joint task List (UJTL)
OP 2.0.1 Collect Information on Operational Situation
OP 3.1.7 Employ Fire Support Coordination Measures
OP 5.1.1 Communicate Operational Information
OP 6.1.5 Conduct Joint Operations Area Missile Defense
OP 6.2.1 Prepare Operationally Significant Defenses

Army Universal Task List (AUTL)
ART 6.1.1 PROCESS TACTICAL AERIAL PLATFORMS
ART 6.1.2 DESTROY AERIAL PLATFORMS
ART 6.1.3 DENY ENEMY USE OF AIRSPACE
ART 6.1.4 REACT TO ENEMY AERIAL ATTACK
ART 6.1.5 PLAN BALLISTIC MISSILE DEFENSE
ART 6.1.6 CONDUCT BALLISTIC MISSILE DEFENSE
ART 6.1.7 MANAGE SYSTEM CONFIGURATION

ART 6.1.8 PLAN ROCKET, ARTILLERY, AND MORTAR DEFENSE
ART 6.1.9 CONDUCT ROCKET, ARTILLERY, AND MORTAR DEFENSE

Performance Steps

1. Push the PWR key to turn the DAGR on.

2. Verify Power-On Status Message.

Note: All messages may not be listed as they are dependent on how the DAGR is configured. When applicable, use the up/down cursor control keys to scroll and view the entire display message.

Self Test - Indicates self-test results as pass (no self-test failures found) or fail (self-test failures detected). The power-on self-test performs an automatic self-test of receiver hardware (SAASM module) and does not require any input from the operator. Always displayed.
Battery Used - Indicates primary battery capacity used (amount of time DAGR has been operated using primary battery, in hours and minutes). Displayed when using internal primary battery power only.
Battery Left - Indicates primary battery capacity remaining (in hours and minutes). Displayed when using internal primary battery power only.
Power - Indicates external power being used. Displayed when using external power only.
Days Remaining - If CVw or BCVm (black CV monthly) key is loaded, indicates days remaining in mission; and also indicates if enough CV keys are loaded for mission duration.
Default - Indicates DAGRs position, time, and date are default values; or if initialization is recommended for the DAGR.

The Power-On Status message times out in two seconds and the DAGR is ready to use if the following are true. If the Power-On Status message indicates anything different than the following list, the operator is prompted to push the ENTER key to acknowledge; and the DAGR is ready to use if self-test indicates pass. If self-test fails, the operator is prompted to push the ENTER key to acknowledge; but the DAGR is not ready to use.
o Self-test has passed.
o DAGR does not need initialization.

3. Acquire Current Position.

Note: After the Power-On Status display times out or is acknowledged, the DAGR displays the SV (Satellite Vehicle) Sky View page with satellite acquisition status appearing at the top. Initially, status is displayed as Acquiring SVs..., followed by Navigating. After DAGR has acquired current position, the unit automatically switches to the Present Position page of the POS page set and displays position coordinates

4. View the SV Sky View Page.

Note: The page displays information on visible and tracked satellites. The current operating status is shown at the top of the display. Numbers inside black circles indicate satellites in use to acquire or maintain current DAGR position. The corresponding number at left side of display provides a bar graph indication of satellite signal strength and code status. The longer the bar, the greater the signal strength. A hollow bar indicates DAGR is tracking the satellite, but has not collected ephemeris data. A black bar indicates DAGR is tracking satellites and ephemeris data is collected. Ephemeris data is position and clock data unique to an individual satellite. If the DAGR is not able to display satellite information, no bar will appear at the left side of the display.

5. View the Present Position Page.

Note: This page displays present position coordinates, coordinate and grid system, datum identifier, current operating mode, estimated horizontal error (EHE), figure of merit (FOM), elevation, and elevation reference. Operator can scroll the page to view additional field data.

6. Adjust Keypad/Display Lighting.

Note: As required, push and hold the BRIGHTNESS key to toggle the keypad/display lighting on and off. Adjust the lighting brightness by simultaneously pushing and holding the BRIGHTNESS key and the respective up or down cursor control key. Keypad/display lighting can also be controlled with one hand using the Light/Contrast page and the following procedure.

a. Push the MENU key twice to display the Main Menu.

b. Highlight Display Setup.

c. Push the ENTER key.

d. Highlight Light/Contrast.

e. Push the ENTER key.

f. Push the respective up or down cursor control key.

7. Perform Manual Initialization.

Note: Manual initialization may be needed when the DAGR has difficulty obtaining current position coordinates, or DAGR datum is mismatched with present position.

a. Access Present Position page.

(1) Push and hold the POS key.

(2) Verify the Present Position page is displayed.

b. Perform initial setup.

(1) Select datum.

(a) Push the MENU key.

(b) Highlight Select Datum.

(c) Push ENTER key.

(d) Scroll to highlight the datum corresponding to the geographical map being used.

(e) Push ENTER key.

Note: Display returns to the Present Position page with datum change made to upper right corner of top field.

(2) Select coordinate/grid system.

(a) Push the MENU key.

(b) Highlight Select Coord/Grid.

(c) Push ENTER key.

(d) Scroll to select the coordinate/grid system corresponding to the geographical map being used.

(e) Push ENTER key.

Note: Display returns to the Present Position page with coordinate/grid system change made to upper left corner of top field.

(3) Select units of measure or references (as required).

Note: As an example, the following steps provide selection of elevation units only.

(a) Push the ENTER key to highlight a field from the Present Position page.

(b) Use the cursor control keys to scroll to the Elevation field.

(c) Push the MENU key.

(d) Highlight Select Elev Units.

(e) Push the ENTER key.

(f) Choose the appropriate unit of measure.

(g) Push the ENTER key.

Note: Display returns to the Present Position page with change made. As required, repeat procedure for other field units of measure or references.

c. Configure initialization data.

Note: Entering data may not be necessary if a current almanac (satellite position and time data) is available. The DAGR is capable of tracking satellites and acquiring a current almanac in Continuous, Fix, Average, and Time Only operation modes. Observe the SV Sky View page for satellite tracking and almanac information. DAGR ground speed must be greater than 0.56 meters per second to initialize track.

(1) Push the ENTER key from the Present Position page.

(2) Use cursor control keys to scroll through fields as desired.

(3) Push ENTER key when desired field is highlighted.

(4) Scroll to the desired field content.

(5) Push ENTER key.

Note: Display returns to the Present Position page with changes made to field content.

d. Select Continuous Operating mode.

(1) Push the MENU key.

(2) Highlight Select Op Mode.

(3) Push ENTER key.

(4) Highlight Continuous.

(5) Push ENTER key.

Note: If a message is displayed instructing the operator to acknowledge initialization is required, push ENTER key. Display returns to the Present Position page with operating mode change made to lower right corner of top field.

CAUTION

o If expecting to operate in conditions where tracking satellites is not possible (such as entering a cave), the DAGR should be placed in Standby mode prior to entering these conditions. If done, the DAGR performs a direct Y-code acquisition (if keyed) when set back to a tracking mode in unobscured conditions. If the DAGR is left in a tracking mode for a period of one hour while obscured, the ability to perform direct Y-code reacquisitions may be lost. To correct this, cycle DAGR to Standby mode and back to a tracking mode.
o When attempting to acquire satellites after the signals have been blocked for a period of time (e.g., when exiting a cave), acquisition time may be improved by momentarily cycling the unit to Standby mode and then back to the previous operating mode.

e. Observe Present Position page.

f. Observe SV Sky View page.

8. Select Operating Mode.

Note: The DAGR mode of operation can be selected from the Present Position page menu, GPS Setup page, SV Sky View Page menu, or Receiver Status display menu. The following procedure uses the Present Position page menu.

a. Push and hold the POS key until the Present Position page is displayed.

b. Push the QUIT key to unhighlight any highlighted fields.

c. Push the MENU key.

d. Highlight Select Op Mode.

e. Push the ENTER key.

f. Highlight the desired operating mode.

g. Push the ENTER key.

9. Power-Off the DAGR.

Note: When the DAGR is commanded to turn off, the receiver displays a 30 second countdown warning prior to turning the unit off. The DAGR provides an auto-off timer to conserve power by automatically turning the DAGR off after a period of inactivity. Auto-off timer is controlled from the Receiver Setup submenu, Power Saver page. When in the Off mode, the DAGR maintains crypto keys, waypoints, routes, and setup data providing either primary power, memory power, or external power is available.

a. Push and hold the PWR key.

b. Push the ENTER key to immediately power off the DAGR.

(Asterisks indicates a leader performance step.)

Evaluation Preparation:

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Pushed the PWR key to turn the DAGR on.			
2. Verified Power-On Status Message.			
3. Acquired Current Position.			
4. Viewed the SV Sky View Page.			
5. Viewed the Present Position Page.			
6. Adjusted Keypad/Display Lighting.			
7. Performed Manual Initialization.			
8. Selected Operating Mode.			
9. Powered-Off the DAGR.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	LOCAL SOP	LOCAL SOP	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. Everyone is responsible for safety. A thorough risk assessment must be completed prior to every mission or operation.

Prerequisite Individual Tasks : None

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
441-066-1169	Perform Emergency Procedures on the Defense Advanced Global Positioning System (GPS) Receiver (DAGR)	441 - Air Defense (Individual)	Analysis
113-610-2006	Program the Defense Advanced Global Positioning System (GPS) Receiver (DAGR)	113 - Signal (Individual)	Obsolete

Supported Individual Tasks :

Task Number	Title	Proponent	Status
441-066-1035	Operate the Precision Lightweight Global Positioning System Receiver (PLGR)	441 - Air Defense (Individual)	Approved
171-158-0002	Prepare the Commander's Station for Operation on the Command Vehicle (CV)	171 - Armor (Individual)	Approved

Supported Collective Tasks :

Task Number	Title	Proponent	Status
44-4-3501	Disseminate Early Warning	44 - Air Defense (Collective)	Approved
44-6-3501	DisseminateTactical Area Plaforms Warning to Deployed Formations and Civil Populations	44 - Air Defense (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data

12C Critical Task List - Skill Level 1	Enlisted	MOS: 12C, Skill Level: SL1